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MEMORANDUM

To:	Gary Miller and Anne Foster U.S. Environmental Protection Agency	**Date:**	August 14, 2015
From:	John Laplante, John Verduin, Wendell Mears, and David Keith, Anchor QEA	**Project:**	090557-01
Cc:	Phil Slowiak, IP David Moreira, MIMC		
Re:	Post-TCRA Semi-Annual Inspection Report – July 2015		

Introduction

This document reports the results of the July 2015 inspection of the armored cap cover, fencing, and signage installed for the Time Critical Removal Action (TCRA) at the San Jacinto River Waste Pits Superfund Site (TCRA Site).

Background

The TCRA was implemented by International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC) under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, effective May 17, 2010. A full description of the TCRA implementation is provided in the associated project documentation:

- Removal Action Work Plan (RAWP; Anchor QEA 2010, 2011)
- Revised Draft Final Removal Action Completion Report[1] (RACR; Anchor QEA 2012)

[1] David Keith, Respondents' Project Coordinator, received a RACR (in the form issued by USEPA) from Valmichael Leos via email on August 15, 2012; however, the appendices to the RACR including the OMM Plan, were not provided to Dr. Keith as part of the document. The OMM Plan had been previously approved by USEPA (in an email from Mr. Leos dated January 18, 2012) and is assumed to remain unchanged. Respondents reserve all rights related to the changes made by USEPA to the Revised Draft Final RACR, submitted by Respondents to USEPA on March 9, 2012.

The inspection summarized in this report was conducted in accordance with the schedule established in the Operations, Monitoring, and Maintenance (OMM) Plan (Appendix N of the RACR – Anchor QEA 2012)[2]. The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection, maintenance, and repair of the armored cap, fencing, and signage installed for the TCRA Site.

Visual Inspection

The visual inspection, which took place on July 1, 2015, included evaluation of the TCRA elements referenced below:

- Inspection of the security fence and signage surrounding the TCRA Site.
- Inspection of the armored cap that was visible above the water line of the San Jacinto River.
- Visual confirmation that waste materials are not actively eroded into the San Jacinto River.

Photographs of conditions observed during the visual inspection are provided in Appendix A (Figures A-1 to A-5). A summary of each facet of the visual inspection is provided in the following sections.

Armored Cap

Photographs of the armored cap from the inspection event are provided in Appendix A (see Photographs 2 through 8). Due to higher water levels, the majority of the Eastern Cell armored cap was underwater. All of the visible portions of the armored cap were observed to be intact, and no movement of cap materials was observed at any location during the visual inspection.

During a site visit on June 6, 2015, exposed geotextile in a small area near the intersection of the southern and central berms in the stockpile area was observed. A subsequent investigation found that the exposed area was a third layer of geotextile that was applied as

[2] The OMM Plan was attached to the Draft Final RACR, submitted to USEPA on November 22, 2011, and authorization to implement the OMM Plan was contained in an email from USEPA dated January 18, 2012. The OMM Plan was also attached as an appendix to the Revised Draft Final RACR submitted to USEPA on March 9, 2012.

extra protection in the stockpile area during construction activities. With USEPA's concurrence, on July 1, 2015, the Respondents manually placed armor cap material over the exposed third layer of geotextile (see Photographs 15 through 18). A stockpile of armor cap material is located by the access ramp to the central berm in the event it is needed for minor repairs or other purposes.

Grassy and woody vegetation was observed around much of the armored cap perimeter during the July 1, 2015 visual inspection due to the large amounts of rainfall earlier in the summer. Vegetative control via herbicide took place on July 9, 2015. On July 16, 2015, a follow-up visit to the site identified areas where a second application was needed (see Photographs 19 and 20). Photographs 21 and 22 from July 22, 2015 show the progress of the initial herbicide treatment and state of the vegetation prior to the second application that was completed the same day.

Perimeter Fencing

The perimeter fencing on the west and east banks of the San Jacinto River was visually inspected for breaches or other signs of damage. No breaches or other signs of fence damage were observed during the inspection for any of the three sections of the fence: the east bank, the west bank on the north side of I-10, or the west bank on the south side of I-10. For examples, see Photographs 10 through 14 in Appendix A.

The portion of the fence installed along the south boundary of the San Jacinto River Fleet (SJRF) property is not included in the fencing inspection, as the SJRF property is currently occupied by an active facility that conducts daily security checks, as required by the U.S. Coast Guard and Transportation Security Administration, for an active maritime fleeting area.

In the east bank area south of I-10 there was evidence of continued access and construction for offloading per the Linde agreement with the USEPA, TxDOT, and the Respondents. At the time of inspection the east and west bank gates were secured.

Signage

"Danger" and "No Trespassing" signs are posted at regular intervals on the perimeter fencing surrounding the TCRA Site. For examples, see Photographs 10 and 13 in Appendix A. These signs were observed to be in place during the July 1, 2015 inspection.

A total of fifteen signs were installed at the TCRA Site around the perimeter of the land portion of the TCRA Site; the signs are mounted on steel posts and set in concrete pads. For examples, see Photographs 3 and 4 in Appendix A. These signs are intended to face the San Jacinto River to deter water-based entry to the TCRA Site. A few of these signs had rotated out of proper alignment due to the wind; the affected signs were re-aligned to the intended viewing perspective.

Three USEPA Public Notice signs are present around the TCRA Site located: 1) near the gate entry point for the perimeter fence north of I-10; 2) near a gate entry point south of I-10; and 3) at the end of the TxDOT right-of-way north of I-10 near the San Jacinto River. For examples, see Photographs 1 and 11 in Appendix A. These three signs were observed to be in place and undamaged. Vegetation growing in front of the signs was cut down on July 1, 2015 and herbicide was applied on July 9 and 22, 2015 to prevent possible obstructions.

Signage on all locked gates reminds entrants to "daisy chain" the locks properly prior to leaving the TCRA Site. These signs were observed to be in place and undamaged.

Table 1 summarizes the condition of the TCRA Site signage described in this section.

Table 1

TCRA Perimeter Fencing and Sign Inspection Punch List

Task	Status	
	Completed	Date
Perimeter Fence Visually inspect the perimeter fencing on the east and west sides of the San Jacinto River.	Yes	7/1/2015
"Danger" and "No Trespassing" Signs Visually inspect the 15 signs to verify that they remain in place.	Yes	7/1/2015
USEPA Public Notice Signs Visually inspect the 3 signs to verify that they remain in place.	Yes	7/1/2015
Daisy Chain Signs Visually inspect the 2 signs to verify that they remain in place.	Yes	7/1/2015

Surveys

Portions of the armored cap above the water surface or at a water depth too shallow to access by boat were surveyed using land-based topographic survey techniques. A bathymetric survey was performed for the portions of the armored cap below the water surface and accessible by boat. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan.

Survey Tolerance Requirements

The OMM Plan requires that each survey be compared with the prior completed survey using the following criteria:

1. Areas with elevations that are within 6 inches of the previous survey require no action.
2. Contiguous areas with elevation changes exceeding plus or minus 6 inches triggers a review of the survey benchmarks for accuracy or movement.
3. Areas where surveyed elevations are 6 inches higher or lower than the prior survey for a contiguous area larger than 30 feet by 30 feet will require probing to measure the cap thickness.

Survey Results

The survey data from the July 2015 inspection survey and the January and April 2015 surveys were compared to evaluate the differences in the top of the armored cap elevation. These differences are shaded and shown on Figure 3. The survey results indicate continued sedimentation/deposition on the surface of the armored cap in submerged areas.

Manual probing of armored cap thickness is required at areas identified by the topographic or bathymetric surveys as more than 6 inches lower in elevation than during the prior survey over contiguous areas of 30 feet by 30 feet. When the July 2015 and prior January and April 2015 surveys were compared, the results indicated that there were no areas that met the manual probing requirement. Therefore, no probing was conducted as part of the July 2015 inspection.

The small areas identified as increases and decreases in elevation can be attributed to the horizontal and vertical limitations of the survey, minor shifts in track line location from the baseline survey, and elevation data recorded in the crevices between rock surfaces or atop

shellfish growth. The potential for these types of variations between the two datasets to exist was confirmed by the surveyor after reviewing the data collected during this inspection.

Repairs to TCRA Construction Elements

Respondents added additional rock in the stockpile area to cover small exposed geotextile areas there and conducted vegetation control. No TCRA construction elements were identified as deficient or damaged during this inspection event. No maintenance was required to the TCRA cap in response to the July 2015 inspection.

Inspection Summary

The post-TCRA inspection during July 2015 did not identify damaged areas in the perimeter fence or signage. The armored cap remains intact.

List of Appendices

Appendix A – Inspection Photographic Log

References

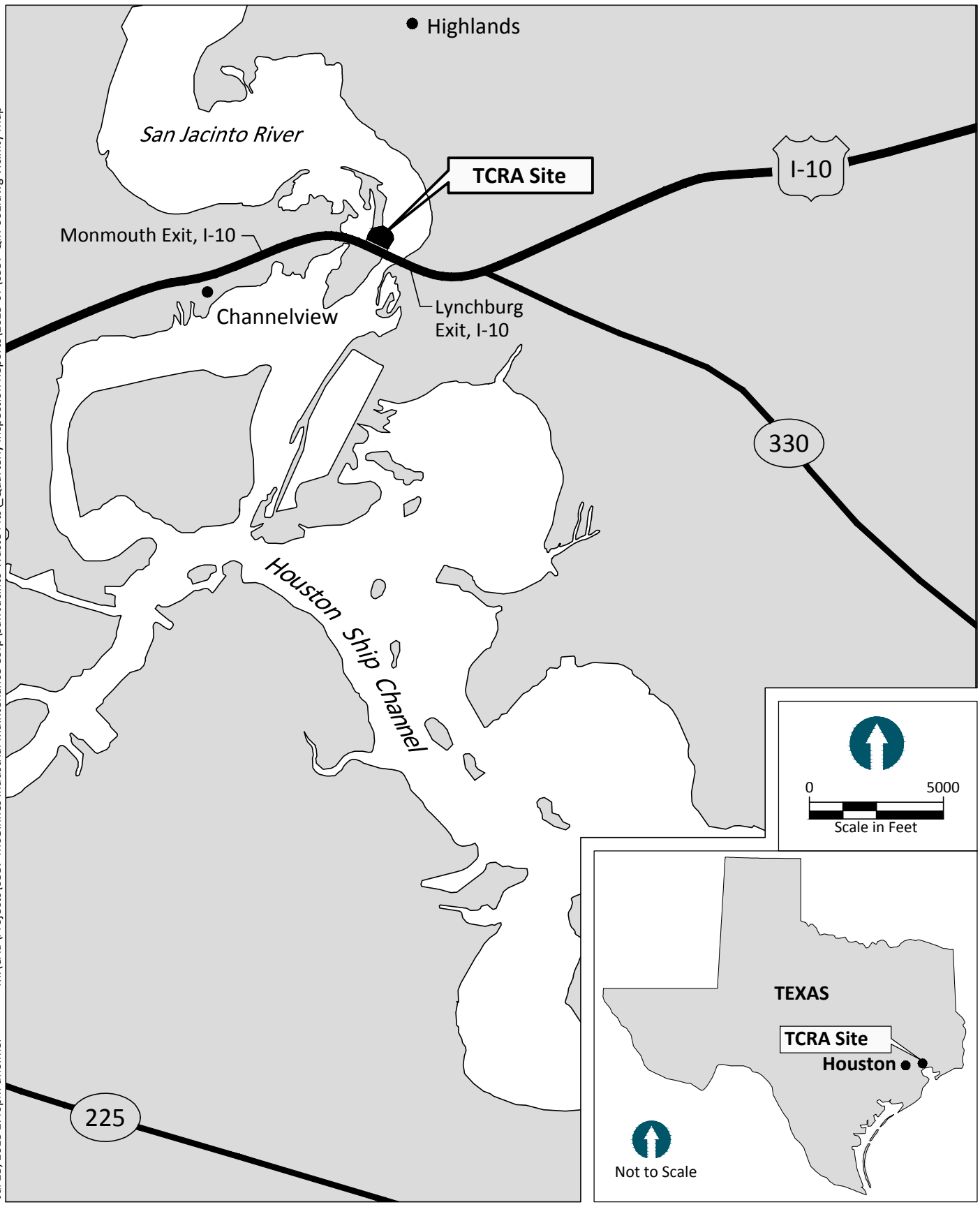
Anchor QEA, LLC (Anchor QEA), 2010. *Removal Action Work Plan, San Jacinto River Waste Pits Superfund Site.* Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. November 2010.

Anchor QEA, 2011. *Removal Action Work Plan, San Jacinto River Waste Pits Superfund Site*. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. Revised February 2011.

Anchor QEA, 2012. *Revised Draft Final Removal Action Completion Report, San Jacinto River Waste Pits Superfund Site.* Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. Revised March 2012.

USEPA, 2010. *Administrative Settlement Agreement and Order on Consent for Removal Action.* U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company & McGinnes Industrial Management Corporation, Respondents.

FIGURES



M:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2015-07\0557-QIR-001.dwg Vicinity Map
Jul 23, 2015 2:40pm dholmer

Figure 1
Vicinity Map
Post TCRA Semi-Annual Inspection (July 2015)
San Jacinto River Waste Pits Superfund Site

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SOURCE: Martin Survey Associates, Inc. survey dated 2/23/2010 - 3/01/2010.
AERIAL SOURCE: Google Maps imagery.
NOTES:
1. Existing access gates have two 12-foot-wide leafs providing a 24-foot-wide opening.
2. Coordinates are in Texas State Plane, NAD 83 (South Central Zone). Coordinates shown are grid. Multiply by 1.0001007882 to convert to surface coordinates.
3. A guardrail barrier was constructed along the south side of the access road, and conformed to TxDOT Specifications Manual Items 540, 542, and 544.
4. Power line poles providing service to billboards were moved near TxDOT ROW property line.
5. "Danger" and "No Trespassing" signs have been installed on TCRA fencing.

SJB-06
S08
S07
SJB-05
S05
S09
S06
S04
SJB-04
S01
S10
S02
S03
SJB-03
S11
S12
SJB-02
S13
S14
SJB-01
S15
SAN JACINTO RIVER
I-10
Access Gate (See Note 1)
South Right-Of-Way (Approximate)
Access Gate (See Note 1)
Existing Fence Terminates in Water
℄ Westbound Lane I-10 to Houston
℄ Eastbound Lane I-10 to Baytown
I-10
Fence Terminates at Concrete of I-10 Bridge
Fence Terminates at Shoreline
SAN JACINTO RIVER
Crosby-Lynchburg Road
Fence Line Follows Southern Limits of the TxDot Right-Of-Way
Access Gates

LEGEND:

- Texas Department of Transportation (TxDOT) Right-Of-Way (ROW) (Approximate)
- Existing Fence
- S01 ⚠ Approximate Location of "Danger" and "No Trespassing" Signs along the Western Cell Perimeter.
- SJB-01 ⊙ Buoy Location and Designation

0 300
Scale in Feet

M:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2015-07\0557-QIR-002.dwg Fence and Warning Sign Layout
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Figure 2
Fence and Warning Sign Layout
Post TCRA Semi-Annual Inspection (July 2015)
San Jacinto River Waste Pits Superfund Site

LEGEND:

- July 2015 Bathymetric and Topographic Contours (1 Foot Interval)
- B/C — Armored Cap Type and Boundary
- Historic Impoundment Limits
- > 1.0 Foot Increase
- 0.5 Foot Increase to 1.0 Foot Increase
- 0.5 Foot Increase to 0.5 Foot Decrease
- 0.5 Foot Decrease to 1.0 Foot Decrease
- > 1.0 Foot Decrease
- 30' x 30' — Example 30'x30' Area

SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated January 2015 (supplemented with additional survey data collected on April 8, 2015) and July 2015.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.

0 120
Scale in Feet

Jul 23, 2015 2:41pm dholmer M:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2015-07\0557-QIR-003.dwg July 2015 Semi-Annual Inspection

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Figure 3
July 2015 Semi-Annual Inspection
Post TCRA Semi-Annual Inspection (July 2015)
San Jacinto River Waste Pits Superfund Site

APPENDIX A
INSPECTION PHOTOGRAPHIC LOG

Photograph 01: USEPA Public Notice Sign located outside the access gate north of I-10 (view southeast)

Photograph 02: Southern berm (view west)

Photograph 03: Central berm and intertidal area of Eastern Cell (view northwest)

Photograph 04: Warning sign along central berm (view west)

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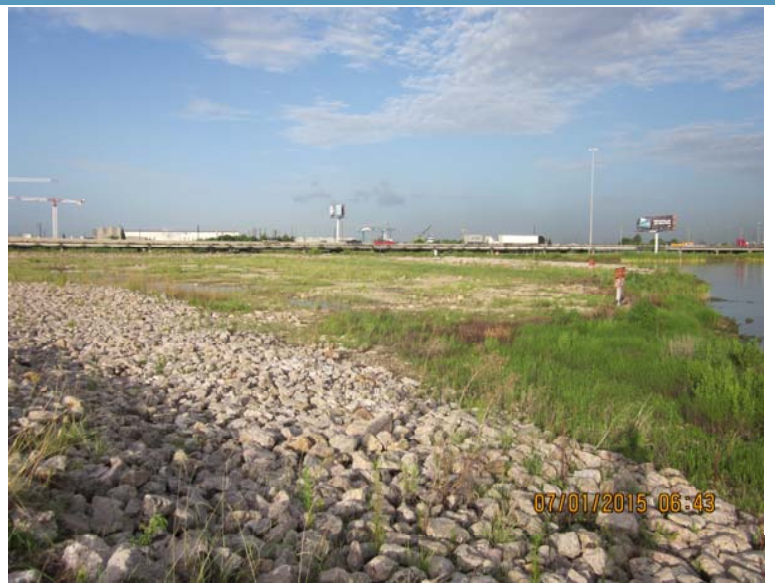
Figure A-1
Site Photographs
Post-TCRA Inspec. on Report (July 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 05: Vegetation along intertidal area of Eastern Cell (view southeast)



Photograph 06: Interior or Western Cell (view southwest)

Photograph 07: Western berm (view south)

Photograph 08: Interior of Western Cell (view northwest)

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Figure A-2
Site Photographs
Post-TCRA Inspection Report (July 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 09: Fish consumption advisory signs located south of I-10 on west bank (view south)

Photograph 10: Warning sign on perimeter fencing south of I-10 on west bank (view northeast)

Photograph 11: USEPA Public Notice Sign located south of I-10 on west bank (view north)

Photograph 12: Perimeter fencing south of I-10 on west bank (view northwest)

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Figure A-3
Site Photographs
Post-TCRA Inspection Report (July 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 13: Warning sign on perimeter fencing south of I-10 on west bank (view north)

Photograph 14: Perimeter fencing south of and adjacent to I-10 on east bank (view northeast)

Photograph 15: Stockpile material and area with exposed 3rd layer geotextile near intersection of southern and central berms (view west)

Photograph 16: Benchmark manually adding material to cover exposed 3rd layer geotextile near intersection of southern and central berms (view northeast)

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Figure A-4
Site Photographs
Post-TCRA Inspection Report (July 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 17: Manually repaired area with previously exposed 3rd layer geotextile near intersection of southern and central berms (view northwest)

Photograph 18: Close-up of repaired area shown in Photograph 17

Photograph 19: Vegetation at intersection of southern and central berms one week after initial vegetative control measures (view southeast)

Photograph 20: Vegetation on northern edge of Western Cell one week after initial vegetative control measures (view southwest)

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Figure A-5
Site Photographs
Post-TCRA Inspection Report (July 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 21: Vegetation at intersection of southern and central berms prior to second application of vegetative control measures (view southeast)

Photograph 22: Vegetation on northern edge of Western Cell prior to second application of vegetative control measures (view southwest)

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Figure A-6
Site Photographs
Post-TCRA Inspection Report (July 2015)
San Jacinto River Waste Pits Superfund Site